```
ATG TCT AGA TTA GAT AAA AGT AAA GTG ATT AAC AGC GCA TTA GAG CTG CTT AAT
Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu Leu Asn

GAG GTC GGA ATC GAA GGT TTA ACA ACC CGT AAA CTC GCC CAG AAG CTA GGT GTA
Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln Lys Leu Gly Val

GAG CAG CCT ACA TTG TAT TGG CAT GTA AAA AAT AAG CGG GCT TTG CTC GAC GCC
Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys Arg Ala Leu Leu Asp Ala

TTA GCC ATT GAG ATG TTA GAT AGG CAC CAT ACT CAC TTT TGC CCT TTA GAA GGG
Leu Ala Ile Glu Met Leu Asp Arg His His Thr His Phe Cys Pro Leu Glu Gly

GAA AGC TGG CAA GAT TTT TTA CGT AAT AAG GCT AAA AGT TTT AGA TGT GCT TTA
Glu Ser Trp Gln Asp Phe Leu Arg Asn Lys Ala Lys Ser Phe Arg Cys Ala Leu
```

Fig. 4A

```
CTA AGT CAT CGC GAT GGA GCA AAA GTA CAT TTA GGT ACA CGG CCT ACA GAA AAA
Leu Ser His Arg Asp Gly Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys

CAG TAT GAA ACT CTC GAA AAT CAA TTA GCC TTT TTA TGC CAA CAA GGT TTT TCA
Gln Tyr Glu Thr Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser

CTA GAG AAT GCA TTA TAT GCA CTC AGC GCT GTG GGG CAT TTT ACT TTA GGT TGC
Leu Glu Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys

GTA TTG GAA GAT CAA GAG CAT CAA GTC GCT AAA GAA GAA AGG GAA ACA CCT ACT
Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr Pro Thr

ACT GAT AGT ATG CCG CCA TTA TTA CGA CAA GCT ATC GAA TTA TTT GAT CAC CAA
Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu Phe Asp His Gln
```

Fig. 4B .
(con't) .

```
GGT GCA GAG CCA GCC TTC TTA TTC GGC CTT GAA TTG ATC ATA TGC GGA TTA GAA
Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu Ile Ile Cys Gly Leu Glu

AAA CAA CTT AAA TGT GAA AGT GGG TCC GCG TAC AGC CGC GCG CGT ACG AAA AAC
Lys Gln Leu Lys Cys Glu Ser Gly Ser Ala Tyr Ser Arg Ala Arg Thr Lys Asn

AAT TAC GGG TCT ACC ATC GAG GGC CTG CTC GAT CTC CCG GAC GAC GCC CCC
Asn Tyr Gly Ser Thr Ile Glu Gly Leu Leu Asp Leu Pro Asp Asp Ala Pro

GAA GAG GCG GGG CTG GCG GCT CCG CGC CTG TCC TTT CTC CCC GCG GGA CAC ACG
Glu Glu Ala Gly Leu Ala Ala Pro Arg Leu Ser Phe Leu Pro Ala Gly His Thr

CGC AGA CTG TCG ACG GCC CCC CCG ACC GAT GTC AGC CTG GGG GAC GAG CTC CAC
Arg Arg Leu Ser Thr Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His
```

Fig. 4C.
(cont.)

```
TTA GAC GGC GAG GAC GTG GCG ATG GCG CAT GCC GAC GCG CTA GAC GAT TTC GAT
Leu Asp Gly Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp

CTG GAC ATG TTG GGG GAC GGG GAT TCC CCG GGT CCG GGA TTT ACC CCC CAC GAC
Leu Asp Met Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro His Asp

TCC GCC CCC TAC GGC GCT CTG GAT ATG GCC GAC TTC GAG TTT GAG CAG ATG TTT
Ser Ala Pro Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe Glu Gln Met Phe

ACC GAT CCC CTT GGA ATT GAC GAG TAC GGT GGG TAG
Thr Asp Pro Leu Gly Ile Asp Glu Tyr Gly Gly Gly *
```

Fig. 4D (cont)

```
ATG TCT AGA TTA GAT AAA AGT AAA GTG ATT AAC AGC GCA TTA GAG CTG CTT AAT
Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu Leu Asn

GAG GTC GGA ATC GAA GGT TTA ACA ACC CGT AAA CTC GCC CAG AAG CTA GGT GTA
Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln Lys Leu Gly Val

GAG CAG CCT ACA TTG TAT TGG CAT GTA AAA AAT AAG CGG GCT TTG CTC GAC GCC
Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys Arg Ala Leu Leu Asp Ala

TTA GCC ATT GAG ATG TTA GAT AGG CAC CAT ACT CAC TTT TGC CCT TTA GAA GGG
Leu Ala Ile Clu Met Leu Asp Arg His His Thr His Phe Cys Pro Leu Glu Gly

GAA AGC TGG CAA GAT TTT TTA CGT AAT AAC GCT AAA AGT TTT AGA TGT GCT TTA
Glu Ser Trp Gln Asp Phe Leu Arg Asn Asn Ala Lys Ser Phe Arg Cys Ala Leu
```

Fig. 5A

CTA AGT CAT CGC GAT GGA GCA AAA GTA CAT TTA GGT ACA CGG CCT ACA GAA AAA
Leu Ser His Arg Asp Gly Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys

CAG TAT GAA ACT CTC GAA AAT CAA TTA GCC TTT TTA TGC CAA CAA GGT TTT TCA
Gln Tyr Glu Thr Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser

CTA GAG AAT GCA TTA TAT GCA CTC AGC GCT GTG GGG CAT TTT ACT TTA GGT TGC
Leu Glu Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys

GTA TTG GAA GAT CAA GAG CAT CAA GTC GCT AAA GAA GAA AGG GAA ACA CCT ACT
Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr Pro Thr

ACT GAT AGT ATG CCG CCA TTA TTA CGA CAA GCT ATC GAA TTA TTT GAT CAC CAA
Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu Phe Asp His Gln

Fig. 5B
(cont)

GGT GCA GAG CCA GCC TTC TTA TTC GGC CTT GAA TTG ATC ATA TGC GGA TTA GAA
Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu Ile Ile Cys Gly Leu Glu

AAA CAA CTT AAA TGT GAA AGT GGG TCT GAT CCA TCG ATA CAC ACG CGC AGA CTG
Lys Gln Leu Lys Cys Glu Ser Gly Ser Asp Pro Ser Ile His Thr Arg Arg Leu

TCG ACG GCC CCC CCG ACC GAT GTC AGC CTG GGG GAC GAG CTC CAC TTA GAC GGC
Ser Thr Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His Leu Asp Gly

GAG GAC GTG GCG ATG GCG CAT GCC GAC GCG CTA GAC GAT TTC GAT CTG GAC ATG
Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp Leu Asp Met

TTG GGG GAC GGG GAT TCC CCG GGT CCG GGA TTT ACC CCC CAC GAC TCC GCC CCC
Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro His Asp Ser Ala Pro

Fig. 5C (con't)

TAC GGC GCT CTG GAT ATG GCC GAC TTC GAG TTT GAG CAG ATG TTT ACC GAT GCC
Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe Glu Gln Met Phe Thr Asp Ala

CTT GGA ATT GAC GAG TAC GGT GGG TTC TAG
Leu Gly Ile Asp Glu Tyr Gly Gly Phe *

Fig 5D
(cont)

CTCGAGTTTACCACTCCCTATCAGTGATAGAGAGAAAAGTGAAAGTGCGAGTTTACCACTCCCTATC

AGTGATAGAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCAGTGATAGAGAAAAGTGAAAGT

CGAGTTTACCACTCCCTATCAGTGATAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCAG

TGATAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCAGTGATAGAGAAAAGTGAAAGTCG

AGTTTACCACTCCCTATCAGTGATAGAGAAAAGTGAAAGTCGAGCTCGGTACCCGGGTCGAGTA

GGCGTGTACGGTGGGAGGCCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAGATCGCCTGGAG

ACGCCATCCACGCTGTTTGACCTCCATAGAAGACACCGGGACCGATCCAGCCTCCGCGGCCCC

GAATTCGAGCTCGGTACCGGGCCCCCCCTCGAGGTCGACGGTATCGATAAGCTTGATATCGAAT

TCCAGGAGGTGGAGATCCGCGGGTCCAGCCAAACCCCACCCATTTCTCCTCCCCTCTGCCCC

TATATCCCGGCCACCCCCCTCCTAGCCCTTTCCCTCCCGAGAGACGGGGGAGGAGAGAAAAG

GGGAGTT'AGGTCGACATGACTGAGCTGAAGGCAAAGGAACCTCGGGCTCCCCACGTGGCGGGC

GGCGCGCCCTCCCCACCGAGGTCGGATCCCAGCTCCTGGGTCGCCCGGACCCTGGCCCCTTCC

AGGGGAGCCAGACCTCAGAGGCCTCGTCTGTAGTCTCCGCCATCCCCATCTCCCTGGACGGGTT

Fig. 9A

GCTCTTCCCCGGCCCTGTCAGGGGCAGAACCCCCCAGACGGGAAGACGCAGGACCCACCGTCG

TTGTCAGACGTGGAGGGCGCATTTCCTGGAGTCGAAGCCCGGAGGGGCAGGAGACAGCAGCT

CGAGACCTCCAGAAAGGACAGCGGCCTGCTGACAGTGTCCTGACACGCTCCTGGCGCCCTC

GGGTCCCGGGCAGAGCCACGCCCAGCCTGCCACCTGCGAGGCCATCAGCCCGTGGTGCCTGTTT

GGCCCCGACCTTCCCGAAGACCCCCGGGCTGCCCCGCTACCAAAGGGGTGTTGGCCCCGCTCA

TGAGCCGACCCGAGGACAAGGCAGGCGACAGCTCTGGGACGGCCAGCGGCCCACAAGGTGCTGCC

CAGGGGACTGTCACCATCCAGGCAGCTGCTCCCTCCTCTGGAGCCCTCACTGGCCGGCA

GTGAAGCCCATCCCCGCCAGCCCCGGTGCGTGCCAGGTAGACGAGGAGACAGCTCCGAATCCGAGG

GCACCGTGGGCCCGCTCCTGAAGGCCCAACCTCGGCACTGGAGGCACGGCCCGGAGGGAGG

AGCTGCCCCGTCGCGCGTCTGGAGCGGCCGCAGGAGGCGTGCCCTTGTCCCCAAGGAAGATTCT

CGCTTCTCGGCGCCCAGGGTCTCCTTGGCGAGCAGCAGCGCGGTGGCGCTGGGCGCTCCC

CGCTGGCCACCTCGGTGGTGGATTTCATCCACGTGCCCATCCTGCCCTCTCAACCACGCTTTCCT

GGCCACCCGCACCAGGCAGCTGCTGGAGGGGGAGAGCTACGACGGCCGGCGCGCGCCAGC

Fig. 9B
(cont.)

CCCTTCGr.CCCGCAGCGGGGGCTCCCCCTCTGCCTCGTCCACCCCTGTGGCGGGGGCGACTTCC

CCGACTGCACCTACCCGCCCGACGCCGAGCCCAAAGATGACGCGTTCCCCTCTACGGCGACTT

CCAGCCGCCCGCCCTCAAGATAAAGGAGGAAGAAGCCGCGAGGCCGGCGCGCTCCCCG

CGTACGTACCTGGTGGCTGGTGCAAACCCCGCCTTCCCGGACTTCCAGCTGGCAGCGCCGC

CGCCACCCTCGCTGCCGCCTCGAGTGCCCTCGTCCAGACCCGGGGAAGCGGCGGTGGCGGCCTC

CCCAGGCAGTGCCTCCGTCTCCTCCTGTCGGGGTCGACCCTGGAGTGCATCCTGTAC

AAGGCAGAAGGCGCGCCCCAGCAGGCCCCTTCGCGCCTGCCCTGCAAGCCCTCCGGGCG

CCGGCGCCTGCCTGCTCCCGGGGACGGCCTCCCACCTCCGCGCCTGCCAGCCGCCGG

GGCCGCCCCTGCCGCTCTACCCGACGCTCGGCCTCAACGACTCCCGCGCTACCAGCC

GCCGTGCTCAAGGAGGCCTGCCCGCAGGTCTACACGCCCTATCTCAACTACCTGAGGCCGGATT

CAGAAGCCAGTCAGAGCCCACACAGCTTCGAGTCACTACCTCAGAAGATTTGTTTGATCTG

TGGGGATGAAGCATCAGGCTGTCATTATGGTGTCCTCACCTGTGGGAGCTGTAAGGTCTTCTTT

AAAAGGGCAATGGAAGGGCAGCATAACTATTTATGTGCTGGAAGAAATGACTGCATTGTTGATA

Fig. 9C
(cont.)

AAATCCGCAGGAAAAACTGCCCGGCGTGTCGCCTTAGAAAGTGCTGTCAAGCTGGCATGGTCCT

TGGAGGGCGAAAGTTAAAAAGTTCAATAAAGTTCAGAGTCATGAGAGCACTCGATGCTGTTGCT

CTCCCACAGCCAGTGGGCATTCCAAATGAAAGCCAACGAATCACTTTTCTCCAAGTCAAGAGA

TACAGTTAATTCCCCTCTAATCAACCTGTTAATGAGCATTGAACCAGATGTGATCTATGCAGG

ACATGACAACACAAGCCTGATACCTCCAGTTCTTTGCTGACGAGTCTTAATCAACTAGGCGAG

CGGCAACTTCTTTCAGTGGTAAAATGGTCCAAATCTCTTCCAGGTTTTCGAAACTTACATATTG

ATGACCAGATAACTCTCATCCAGTATTCTTGGATGAGTTAATGGTATTGGACTAGGATGGAG

ATCCTACAAACATGTCAGTGGGCAGATGCTGTATTTGCACCTGATCTAATATTAAATGAACAG

CGGATGAAAGAATCATCATTCTATTCACTATGCCTTACCATGTGGCAGATACCGCAGGAGTTTG

TCAAGCTTCAAGTTAGCCAAGAGAGTTCCTCTGCATGAAAGTATTACTACTTCTTAATACAAT

TCCTTTGGAGGACTAAGAAGTCAAAGCCAGTTGAAGAGATGAGATCAAGCTACATTAGAGAG

CTCATCAAGGCAATTGGTTTGAGGCAAAAAGGAGTTGTTTCCAGCTCACAGCGTTTCTATCAGC

TCACAAACTTCTTGATAACTTGCATGATCTTGTCAAACAACTTCACCTGTACTGCCTGAATAC

Fig. 9D

(cont)

```
ATTTATCCAGTCCCGGCGGCTGAGTGTTGAATTTCCAGAAATGATGTCTGAAGTTATTGCTGCA
CAGTTACCCAAGATATTGGCAGGGATGGTGAAACCACTTCTCTTTCATAAAAAGTGAATGTCAA
TTATTTTTCAAAGAATTAAGTGTTGTGGTATGTCTTTCGTTTTGGTCAGGATTATGACGTCTCG
AGTTTTTATAATATTCTGAAAGGGAATTCCTGCAGCCCGGGGATCCACTAGTTCTAGAGGATC
CAGACATGATAAGATACATTGATGAGTTTGGACAAACCAACAACTAGAAATGCAGTGAAAAAATG
CTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAA
GTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAGGGGGGAGGTGTGGGAGGTTTTTT
AAAGCAAGTAAAACCTCTACAAATGTGGTATGGCTGATTATGATCCTGCAAGCCTCGTCGTCTG
GCCGGACCACGCTATCTGTGCAAGGTCCCCGGACGCGCGGCTCCATGAGCAGAGCGCCCGCC
GAGGCAAGACTCGGCGGCCCGTCCCGTCCCACCAGGTCAACAGGCGGGTAACCGGCCTCTTC
ATCGGGAATGCGCGCGACCTTCAGCATCGCCGGCATGTCCCCTGGCGACGGGAAGTATCAGCT
CGACCAAGCTTGGCGGAGATTTCAGGAGCTAAGGAGCTAAAATGGAGAAAAAAATCACTGGAT
ATACCACCGTTGATATATCCCAATGGCATCGTAAAGAACATTTGAGGCATTTCAGTCAGTTGC
```

Fig. 9E
(cont.)

TCAATGTACCTATAACCAGACCGTTCAGCTGCATTAATGAATCGGCCAACGGCGGGGAGAGGC

GGTTTGCGTATTGGGCGCTTCCGCTCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCGGC

TGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAA

CGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTG

CTGGCGTTTTTCCATAGGCTCCGCCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGA

GGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCG

CTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTG

GCGCTTTCTCAATGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCGCTCCAAGCTGG

GCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGA

GTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGA

GCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAA

GGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTC

TTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTTGCAAGCAGCAGATTACG

Fig. 9F (cont.)

CGCAGAAAAAAGGATCTCAAGAAGATCCTTGATCTTTCTACGGGGTCTGACGCTCAGTGGA

ACGAAAACTCACGTTAAGGGATTTGGTCATGAGATTATCAAAAAGATCTTCACCTAGATCCT

TTTAAATTAAAATGAAGTTTAAATCAATCTAAAGTATATATGAGTAAACTGGTCTGACAGT

TACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTGTTCATCCATAGTTG

CCTGACTCCCCGTCGTGTAGATAACTACGGATACGGGAGGGCCTTACCATCTGGCCCCAGTGCTGC

AATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGA

AGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCC

GGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGG

CATCGTGGTGTCACGCTCGTCGTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGG

CGAGTTACATGATCCCCCATGTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTG

TCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTAC

TGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAA

TAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGGATAAATACCGCGCCACATA

Fig. 9G
(cont.)

GCAGAACTTTAAAAGTGCTCATCATTGGAAAAGCGTTCTTCGGGGCGGAAAACTCTCAAGGATCTT

ACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTT

ACTTTCACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAA

GGGCGACACGGAAATGTTGAATACTCATACTCTTCCTTTTCAATATTATTGAAGCATTTATCA

GGGTTATTGTCTCATGAGCGGATACATATTGAATGTATTTAGAAAATAAACAAATAGGGGTT

CCGCGCACATTCCCCGAAAAGTGCCACCTGACGTCTAAGAAACCATTATTATCATGACATTAA

CCTATAAAAATAGGCGTATCACGAGGCCCTTTCGTC

Fig. 9H.
(cont)
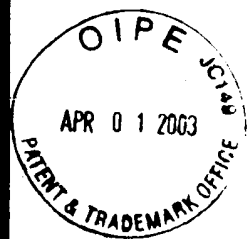
CTCGAGTTTACCACTCCCTATCCAGTGATAGAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATC

AGTGATAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCCAGTGATAGAGAAAAGTGAAAGT

CGAGTTTACCACTCCCTATCCAGTGATAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCCAG

TGATAGAGAAAAGTGAAAGTCGAGTTTACCACTCCCTATCCAGTGATAGAGAAAAGTGAAAGTCG

AGTTTACCACTCCCTATCCAGTGATAGAGAAAAGTGAAAGTCGAGCTCGGTACCCGGGTCGAGTA

GGCGTGTACGGTGGGAGGCCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAGATCGCCTGGAG

ACGCCATCCCACGCTGTTTGACCTCCATAGAAGACACCGGGACCATCCAGCCTCCGCGGCCCC

GAATTCCGCCCAGACCATGACCCTCCACCAAAGCATCTGGGATGGCCCTACTGCA

TCAGATCCAAGGGAACGAGCTGGAGCCCCTGAACCGTCCGCAGCTCAAGATCCCCCTGGAGCGG

CCCCTGGGCGAGGTGTACCTGGACAGCAGCAAGCCCGCCGTGTACAACTACCCGAGGGGCCG

CCTACGAGTTCAACGCCGGCCGCCAACGCGCCAGGTCTACGGTCAGACCGGCCTCCCCTA

CGGCCCCGGTCTGAGGCCGTTCGGCTCCAAGGCCTGGGGGGTTTCCCCCACTCAAC

AGCGTGTCTCCGAGCCCGCGCCGAGCTGTGCACCGGCTACTGCACCGCGCCGCAGCTGCGCCTTTCCTGCAGC

Fig. 10A

CCCACGGCCAGCAGGTGCCCTACTACCTGGAGAACGAGCCCAGCGGCTACACGGTGCGCGAGGC

CGGCCCGCCGGCATTCTACAGGCCCAAATTCAGATAATCGACGCCAGGTGGCAGAGAAAGATTG

GCCAGTACCAATGACAAGGGAAGTATGGCTATGGAATCTGCCAAGGAGACTCGCTACTGTGCAG

TGTGCAATGACTATGCTTCAGGCTACCATTATGGAGTCTGGTCCTGTGAGGCTGCAAGGCCTT

CTTCAAGAGAAGTATTCAAGGACACATAACGACTATATGTGTCCAGCCACCAACCAGTGCACCATT

GATAAAAACAGGAGGAAGAGCTGCCAGGCTCCGCAAATGCTACGAAGTGGCAATGA

TGAAAGGTGGGATACGAAAAGACCGAAGAGGAGGAGAATGTTGAAACACAAGCGCCAGAGAGA

TGATGGGGAGGGCAGGGGGTGAAGTGGGGTCTGCTGGAGACATGAGAGCTGCCAACCTTTGGCCA

AGCCCGCTCATGATCAAACGCTCTAAGAAGAACAGCCTGGCCTTGTCCCTGACGGCCGACCAGA

TGGTCATGGCCTTGTTGGATGCTGAGCCCCCCATACTCTATTCCGAGTATGATCCTACCAGACC

CTTCAGTGAAGCTTCGATGATGGGCTTACTGACCAACCTGCAGCACAGGGAGCTGGTTCACATG

ATCAACTGGGCGAAGAGGGTGCCAGGCTTTGTGGATTGACCCTCCATGATCAGGTCCACCTTC

TAGAAATGTGCCTGGCTAGAGATCCTGATGATGGTTCGTCTGCGGCTCCATGGAGCACCCAGT

Fig. 10B-
(cont)
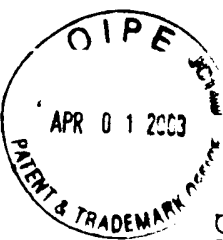
GAAGCTACTGTTTGCTCCTAACTTGCTCTTGGACAGGAACCAGGGAAAATGTGTAGAGGGCATG

GTGGAGATCTTCGACATGCTGCTGGCTACATCATCTCGGTTCCGCATGATGAATCTGCAGGGAG

AGGAGTTTGTGTGCCTCAAATCTATTATTTTGCTTAATTCTGGAGTGTACACATTTCTGTCCAG

CACCCTGAAGTCTCTGGAAGAGAAGGACCATATCCACCGAGTCCTGGACAAGATCACAGACACT

TTGATCCACCTGATGGCCAAGGCCTGACCCTGCAGCAGCACCAGCGGCTGGCCCAGC

TCCTCCTCATCCTCCTCCCACATCAGGCACATGAGTAACAAAGGCATGGAGCATCTGTACAGCAT

GAAGTGCAAGAACGTGGTGCCCCTCTATGACCTGCTGGAGATGCTGGACGCCCACCGCCTA

CATGCGCCCACTAGCCGTGGAGGGCATCCGTGGAGGAGACGGACCAAAGCCACTTGGCCACTG

CGGGCTCTACTTCATCGCCATTCCTTGCAAAAGTATTACATCACGGGGGAGGCAGAGGGTTCCC

TGCCACAGTCTGAGAGCTCCCTGGCGGAATTCGAGCTCGGTACCCGGGGATCCTCTAGAGGATC

CAGACACATGATAAGATACATTGATGAGTTTGGACAAACCACAACTAGAATGCAGTGAAAAAAATG

CTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAA

GTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAGGGGGAGGTGTGGGAGGTTTTT

Fig. 10€ (cont.)

AAAGCAAGTAAAACCTCTACAAATGTGGTATGGCTGATTATGATCCTGCAAGCCTCGTCGTCTG

GCCGGACCACGCTATCTGTGCAAGTCCCCGGACGCGCCGCTCCATGAGCAGAGCGCCCGCCGCC

GAGGCAAGACTCGGGCGGCGCCCTGCCCGTCCCACCAGGTCAACAGGCGGTAACCGGCCTCTTC

ATCGGGAATGCGCGCGACCTTCAGCATCGCCCGGCATGTCCCCTGCCGGACGGGAAGTATCAGCT

CGACCAAGCTTGGCGAGATTTTCAGGAGCTAAGGAAGCTAAAATGGAGAAAAAATCACTGGAT

ATACCACCGTTGATATATCCCAATGGCATCGTAAAGAACATTTGAGGCATTTCAGTCAGTTGC

TCAATGTACCTATAACCAGACCGTTCAGCTGCATTAATGAATCGGCCAACGCGGGGGAGAGGC

GGTTTGCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCGGC

TGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAA

CGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTG

CTGGCGTTTTTCCATAGGCTCCGCCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGA

GGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCG

CTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTG

Fig. 10D
(cont.)

GCGGCTTTCTCAATGCTCACGCTGTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCGCTCCAAGCTGG

GCTGTGTGCACGAACCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGA

GTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGA

GCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAA

GGACAGTATTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTC

TTGATCCCGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGCAAGCAGCAGATTACG

CGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGA

ACGAAAACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCT

TTTAAATTAAAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGT

TACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTCGTTCATCCATAGTTG

CCTGATCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCA

ATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAA

GGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCG

Fig. 10E (cont.)

GGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGC

ATCGTGGTGTCACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGC

GAGTTACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTGT

CAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACT

GTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAAT

AGTGTATGCGGCGACCGAGTTGCTCCTTGCCCGGCGTCAATACGGGGATAATACCGCGCCACATAG

CAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTA

CCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTA

CTTTCACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAG

GGCGACACGGAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTATCAG

GGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTC

CGCGCACATTCCCCGAAAGTGCCACCTGACGTCTAAGAAACCATTATTATCATGACATTAAC

CTATAAAAATAGGCGTATCACGAGGCCCTTTCGTC

Fig. 10F (cont.)